



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
DIVISION OF GROUNDWATER AND
FRESHWATER WETLANDS
291 Promenade Street
Providence, R.I. 02908 - 5767



SEMS DocID 641393

September 26, 1988

MARY
~~Sue~~ Garren

RCRA
EPA Region I
HSR-CAN5
JFK Federal Building
Boston, MA. 02203

RCRA RECORDS CENTER
FACILITY *Agency Realty*
I.D. NO. *RID00042216*
FILE LOC. *R-2*
OTHER _____

Dear Ms. Garren,

Your question regarding the groundwater classification of the Carroll Products site in Richmond, Rhode Island has been referred to me.

Carroll Products is situated in the Lower Wood Groundwater Reservoir, one of the most valuable of Rhode Island's major aquifers. This groundwater reservoir and portions of its recharge area is slated for classification as GAA, per the Rhode Island Groundwater Protection Act of 1985 (see copy enclosed). GAA areas are warranted the highest degree of protection and are suitable for use as public drinking water without treatment.

Since the groundwater quality at Carroll Products is degraded, the groundwater classification of the facility and its immediate vicinity is anticipated to be GB/GAA. This classification indicates that while there is existing degradation, there is a goal for restoration to drinking water quality.

If you have questions, please call me at (401) 277-2234.

Sincerely,

Margaret D. Bradley

Margaret Dein Bradley
Hydrogeologist

MGDB/wmn

cc: Sue Kiernan

46-13-19. Variances and exemptions. — The director may authorize variances or exemptions from the regulations adopted pursuant to this chapter under conditions and in such manner as he deems necessary and desirable provided, however, that such variances or exemptions are permitted under conditions and in a manner which is not less stringent than the conditions under, and the manner in which, variances and exemptions may be granted under the Federal Safe Drinking Water Act, P.L. 93-523, and any amendments thereto.

History of Section.

P.L. 1977, ch. 158, § 2; § 46-13-18; P.L. 1980, ch. 14, § 2.

Federal Acts References. The Federal

Safe Drinking Water Act is codified as 42 U.S.C. §§ 300f — 300j-9.

CHAPTER 13.1

GROUNDWATER PROTECTION

SECTION.

- 46-13.1-1. Short title.
- 46-13.1-2. Legislative findings.
- 46-13.1-3. Definitions.
- 46-13.1-4. Groundwater classification.

SECTION.

- 46-13.1-5. Groundwater protection study.
- 46-13.1-6. Severability.
- 46-13.1-7. Commission established.

46-13.1-1. Short title. — This chapter shall be known and may be cited as the "Rhode Island Groundwater Protection Act of 1985."

History of Section.

P.L. 1985, ch. 494, § 1.

46-13.1-2. Legislative findings. — The general assembly hereby recognizes and declares that:

(1) Water is vital to life and comprises an invaluable natural resource which is not to be abused by any segment of the state's population or its economy. It is the policy of this state to restore, enhance, and maintain the chemical, physical and biological integrity of its waters, to protect public health, to safeguard fish and aquatic life and scenic and ecological values and to enhance the domestic, municipal, recreational, industrial and other uses of water;

(2) The groundwaters of this state are a critical renewable resource which must be protected to insure the availability of safe and potable drinking water for present and future needs;

(3) It is a paramount policy of the state to protect the purity of present and future drinking water supplies by protecting aquifers, recharge areas, and watersheds;

(4) It is the policy of the state to restore and maintain the quality of groundwater to a quality consistent with its use for drinking supplies and other designated beneficial uses without treatment as feasible. All groundwaters of the state shall be restored to the extent practicable to a quality consistent with this policy;

(5) It is the policy of the state not to permit the introduction of pollutants into the groundwaters of the state in concentrations which are known to be toxic, carcinogenic, mutagenic, or teratogenic. To the maximum extent practical, efforts shall be made to require the removal of such pollutants from discharges where such discharges are shown to have already occurred;

(6) Existing and potential sources of groundwater shall be maintained and protected. Where existing quality is inadequate to support certain uses, such quality shall be upgraded if feasible to protect the present and potential uses of the resource;

(7) The groundwaters of the state are to be protected for use as agricultural, industrial, and potable water supplies and other reasonable uses, and as a supplement to surface waters for recreation, wildlife, fish and other aquatic life, agriculture, industry, and potable water supply;

(8) Discharges to groundwater which subsequently discharge into surface waters and which would cause a contravention of surface water quality or standards shall not be permitted.

(9) No degradation of the state's groundwaters shall be permitted unless the state chooses to allow lower water quality as a result of the essential, desirable and justifiable economic, commercial, industrial or social development.

History of Section.

P.L. 1985, ch. 494, § 1.

46-13.1-3. Definitions. — The following words and phrases shall have the meanings ascribed to them in this section, unless the context shall indicate another or different meaning or intent:

(a) "Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells, springs or surface water.

(b) "Bedrock" means the solid rock, commonly called "ledge," that forms the earth's crust.

(c) "Contaminant" means any physical, chemical, biological or radiological substance or matter in water which impairs its intended or feasible use.

(d) "Degradation" means a deterioration or a decline in ambient water quality.

(e) "Director" means the director of the state department of environmental management.

(f) "Groundwater" means water found underground which completely fills the open spaces between particles of sand, gravel, clay, silt and consolidated rock fractures. The zone of materials filled with groundwater is called the zone of saturation.

(g) "Ground water recharge" means the processes of addition of water to the zone of saturation, that zone beneath the water table.

(h) "Maximum contaminant level" means the maximum permissible level of a contaminant present in the water determined at a point

of entry into the distribution system and at any point in the distribution system.

(i) "Non degradation" means maintenance of ambient water quality.

(j) "Recharge area" means an area in which water is absorbed that eventually reaches the zone of saturation.

(k) "Residence time" means the length of time a given unit volume of water (including any contaminant in that water) is present in a hydrologic system.

(l) "Special protection area" means a designation which would delineate a recharge area within a groundwater reservoir which is particularly critical for the maintenance of large volumes of high quality groundwater for long periods of time.

(m) "Toxic pollutant" means a water contaminant or combination of water contaminants in concentration(s) which, upon exposure, ingestion, or assimilation either directly from the environment or indirectly through food chains, will unreasonably threaten to injure human health, or the health of animals or plants which are commonly hatched, bred, cultivated or protected for use by man for food or economic benefit.

(n) "Water quality criteria" means a designated concentration of a constituent that, when not exceeded, will protect an organism, an organism community, or a prescribed water use or quality.

(o) "Water table" means the upper surface of groundwater in the saturated zone of an aquifer system. The level of the water table fluctuates with varying rates of recharge and pumpage.

(p) "Preventive action limit" means a specified percentage of a maximum contaminant level.

History of Section.

P.L. 1985, ch. 494, § 1; P.L. 1986, ch. 298,
§ 1.

46-13.1-4. Groundwater classification. — For the purpose of protecting existing, proposed or potential drinking water supplies, the director shall conduct a survey of all groundwater sources and related groundwater aquifers, watersheds and deep flow recharge areas. Upon completion of said survey, the director shall designate said groundwater sources under one of the following classifications:

(A) **GAA** — groundwater sources suitable for public drinking water use without treatment;

(B) **GA** — groundwater sources which may be suitable for public or private drinking water without treatment;

(C) **GB** — groundwater sources which may not be suitable for public or private drinking water without treatment due to known or presumed degradation;

(D) **GC** — groundwater sources which may be suitable for certain waste disposal practices because past or present land use or

hydrogeologic conditions render said groundwaters more suitable for receiving permitted discharges than for development as public or private water supply.

The director shall develop water quality standards for each classification which specify maximum contaminant levels for each classification. The approach for establishing the water quality standards shall include appropriate criteria established by the United States Environmental Protective Agency to protect the uses of groundwater as designated by the director. Each standard will be adopted, modified or repealed pursuant to the provisions of chapter 17.3 of title 42 by the Rhode Island Environmental Standards Board. Water quality standards shall be used to promote restoration of groundwater to drinking water quality without treatment except where the groundwater is:

- (1) in a zone of discharge otherwise permitted by the provisions of the general laws;
- (2) classified as GB and there exists no demonstrated present or future need to upgrade to GA; or
- (3) classified as GC.

The director shall also develop a preventive action limit for each maximum contaminant level for each classification. In determining the percentage of the maximum contaminant level to be used as a preventive action limit for each contaminant, the director shall take into account whether the contaminant is a toxic pollutant and, if so, whether it has carcinogenic, mutagenic, or teratogenic properties or interactive effects. The director shall promulgate rules setting forth the range of responses that he may take, or that he may require the person, corporation, or other entity controlling a facility, activity, or practice that is a source of the contaminant to take, if the preventive action limit is attained or exceeded. Such responses shall be designed to (1) minimize the concentration of the contaminant in the groundwater where technically and economically feasible; (2) regain and maintain compliance with the preventive action limit, unless the director determines that the preventive action limit is either not technically or not economically feasible, in which case he shall achieve compliance with the lowest possible concentration that is technically and economically feasible; and (3) ensure that the maximum contaminant level is not attained or exceeded.

The director shall complete duties assigned under this section on or before February 28, 1989.

History of Section.

P.L. 1985, ch. 494, § 1; P.L. 1986, ch. 298, § 1.

Compiler's Notes. As enacted by P.L. 1986, ch. 298, § 1, in the next-to-last para-

graph, the words "toxic" in the second sentence and "responses" and "not" preceding "economically feasible" in the fourth sentence contained typographical errors.

46-13.1-5. Groundwater protection study. — The department of environmental management is hereby authorized to conduct a statewide groundwater protection study to include:

- (1) a complete and updated hydrogeologic study depicting the quantities and qualities of groundwater that could be available to specific areas for private or public drinking water;
- (2) present and projected demands for water for specific areas;
- (3) recommendations for the utilization of the state's groundwater resources, including integrated use with surface waters, for their greatest benefits;
- (4) recommendations for such major engineering works or special districts which may be necessary, including the need, timing and general cost thereof;
- (5) recommendations for land use and other measures where appropriate. Pursuant to groundwater classifications as specified in § 46-13.1-4 of this chapter, to insure the desired quality and abundance of water;
- (6) consideration of the land and water resource needs of residential, recreational, agricultural, industrial and commercial interests; and
- (7) recommendations for regional and local planning and programs for water use and management of land resources interfacing with groundwater resources.

The director shall report the findings and recommendations of the groundwater protection study to the general assembly on or before February 28, 1988.

The department of environmental management is hereby directed to make recommendations to identify the physical location of significant aquifers and the identification of any actual or potential harms to those aquifers and the development of a plan to protect the aquifers from the identifiable harms.

The director shall report the findings and recommendations of this portion of the groundwater protection study to the general assembly on or before February 28, 1987.

History of Section.

P.L. 1985, ch. 494, § 1; P.L. 1986, ch. 298,

§ 1.

Compiler's Notes. As amended by P.L.

1986, ch. 298, § 1. the word "this" in the last paragraph and the word "identifiable" in the next-to-the last paragraph contained misspellings.

46-13.1-6. Severability. — If the provisions of this chapter or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications of the chapter which can be given effect without the invalid provision or application, and to this end the provisions of the chapter are declared to be severable.

History of Section.

P.L. 1985, ch. 494, § 1.

46-13.1-7. Commission established. — There is hereby created a commission to be known as the clean drinking water and ground-water standards commission and whose purpose it shall be to review the entire field of ground water and drinking water quality standard.

Such commission shall be composed of one (1) member of the house of representatives appointed by the speaker, one (1) member of the senate appointed by the senate majority leader, the director of the department of environmental management or his designee, the director of the department of health or his designee, the chairman of the water resources board or his designee, seven (7) members of the academic community from local universities and colleges appointed by the governor representing the fields of medicine, hydro-geology, toxicology, environmental engineering, plant and soil science economics, and epidemiology, and three (3) members of the business community affected by this legislation one (1) appointed by the speaker of the house, one (1) appointed by the senate majority leader, and one (1) appointed by the governor.

Forthwith, [on June 26, 1986] the members of the commission shall meet at the call of the speaker of the house and organize. The speaker shall appoint a chairperson from among the members. Vacancies shall be filled in like manner as the original appointment.

The commission shall report its findings and recommendations to the general assembly not later than March 17, 1987.

History of Section.

P.L. 1985, ch. 494, § 1; P.L. 1986, ch. 298, § 1.

Compiler's Notes. The bracketed date in the next-to-last paragraph was substituted by the compiler for "upon passage of this act".

CHAPTER 15

WATER RESOURCES BOARD

SECTION.

- 46-15-2. Board created — Appointment of members.
- 46-15-4. Officers of the board — Quorum and vote required for action.
- 46-15-5. Compensation of members.
- 46-15-6. Powers and duties.
- 46-15-6.1. Cemeteries affecting water supply.
- 46-15-6.2. Water supply planning.
- 46-15-6.3. Emergencies and imminent hazards.
- 46-15-7. Approval of public water supply facilities.

SECTION.

- 46-15-7.1. Review of public water supply facilities.
- 46-15-8. Procedure for approval of maps and plans.
- 46-15-10. Supply of water to other water supply systems.
- 46-15-13. Authority to enter upon lands and waters for purpose of survey.
- 46-15-25. Transfer of powers and functions from water resources board.
- 46-15-26. Public nuisances.
- 46-15-27. Penalties and remedies.
- 46-15-28. Disposition of fines.